

Abstract of the Disclosure

The present invention is a variable gain amplifier for amplifying a radio frequency signal by using a field effect transistor for signal amplification. The variable gain amplifier includes: an input impedance correcting means for correcting the input impedance when varying the gain at the input side of the field effect transistor for signal amplification; an output impedance correcting means for correcting the output impedance when varying the gain at the output side of the field effect transistor for signal amplification; and an amplifier bypass means for passing the radio frequency input signal to the output side by skipping the field effect transistor for signal amplification when varying the gain. According to the present invention, a variable gain amplifier is favorable in the voltage standing wave ratio (VSWR) at the input and output end regardless of presence or absence of gain variation, and the gain attenuation amount can be arbitrarily set. Further, according to the present invention, even in the case where the high frequency signal of strong electric field is inputted, favorable input and output power characteristics are obtained.